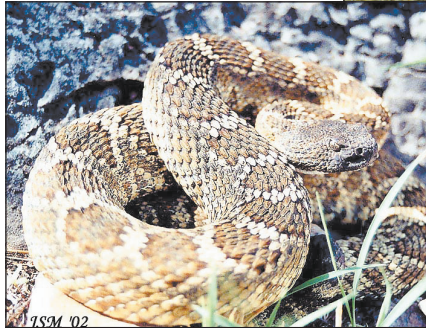


# There's no reason to get rattled as snake season starts

The Northern Pacific rattlesnake is the only native venomous snake to Northern California. Some key traits of the reptile are aptly depicted through its scientific name. *Crotalidae* is derived from the Latin (*crotalum*) meaning “rattle.” *Viridis* describes the green coloration that is a particular trait to the snake in this region. *Ore-ganus* refers to the location of the specimen that classifies the species throughout its range. The geographic range of the Northern Pacific rattlesnake reflects its namesake as well: Santa Barbara north through Oregon and Washington states.

Knowing how to handle an encounter with a rattlesnake is a good idea for those who work in dry, rugged areas like the Laboratory's Site 300 Experimental Test Site. But a cognitive understanding may also benefit people active outdoors in Livermore or other areas where suburbia abuts large areas of wild land. These snakes prefer dry, remote, rocky out-



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crop areas where they can den in the summer and sleep in the winter. A key item to remember is that rattlesnake populations are cyclical — during some years the numbers are higher and other years they are lower. So, observations and encounters may vary greatly over time. Below are two main aspects of snake ecology that, when taken to the field, should allow you to make an informed decision about the rattlesnake realm.

## Recognizing the snake

As March approaches, and the seasonal changes cause an increase in sunshine and daily temperatures, it's a good idea to know how your activities outside may coincide with the rattlesnakes'. At the Laboratory, the Northern Pacific rattlesnake is most likely to be seen at Site 300, but can also be found in the rocky terrain of grassland habitats surrounding Livermore's main site. Understanding some key aspects of snake appearance and behavior may help you during an unexpected



By Jim Woollett



Left, the Western rattlesnake, also known as *Crotalus viridis ssp.*, is coiled and ready to strike. Above, a gopher snake is often mistaken for a rattlesnake at first glance.

meeting while you work in the field or walk along a local country road.

Identifying a rattlesnake is not always a simple task. From a distance, their beige colors and elongated shape are much like any other snake of the area. Contrary to popular belief, they rarely reach lengths of over 4 feet. Coloration can range from dark green on the back and yellowish on the belly to complexes of drab brown and tan tones. Dorsal patterns or “diamonds” across the back

are not a true identifier of a rattlesnake. Gopher snakes, the more common non-venomous compatriot of the California grasslands, have adopted very similar markings and will even buzz their tail to mimic their poisonous counterpart when alarmed, hoping you will mistake them for a rattlesnake and give them wide berth.

Three of the best physical descriptions of the Northern Pacific rattlesnake are the following:

- Rattlesnake tails transition into white and black rings at the base.
- Rattlesnakes have a wide and triangular-shaped head on a slender neck.
- At close range, rattlesnakes have a vertical pupil (much like the eye of their viper-like ancestors).

## Behavior of the snake

Rattlesnakes are definitely venomous, but if you live or work around them the snake often appears reclusive in nature. The majority of documented bites center around animals that are suddenly surprised or provoked. Many people have inadvertently walked on or over these snakes with no harmful consequence. Studies indicate that venom is used primarily for collection of prey. In fact, many members of the pit viper family have full control over how much venom is injected and from one or both of the fangs. It is not unusual for a person that was struck by rattlesnake to receive a “dry bite” whereby venom was not actually released. These snakes are primarily nocturnal and movement patterns during the day are generally related to an increase in appetite, local disturbances or breeding activities.

Keep a safe distance from any sunning snake and stay away from animals crossing roads that are coiled to strike. It's always a good idea to watch any snake from a distance. When hiking or working in the field, wear a boot with coverage extending above the ankle. See the Department of Fish and Game Website ([www.dfg.ca.gov/news/news03/03054](http://www.dfg.ca.gov/news/news03/03054)) for other advice on snake safety.